

REMARKS

In an Office Action dated June 16, 2005, the Examiner rejected claims 1-4, 6, 7, 9, and 13 under 35 U.S.C. §102(e) as being anticipated by Kotzin et al. (U.S. patent no. 5,894,498, hereinafter referred to as "Kotzin"). The Examiner rejected claims 5 and 10 under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Marshall (U.S. patent no. 5,502,744). The Examiner rejected claim 8 under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Krueger et al. (U.S. patent no. 5,982,818). The rejections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 1-4, 6, 7, 9, and 13 under 35 U.S.C. §102(e) as being anticipated by Kotzin. Claims 1 and 13 have been amended to provide encoding information symbols into higher order channel symbols, the encoding of an individual information symbol as a channel symbol both being in response to a forward error correction scheme and including selection of the channel symbol from a higher order channel symbol constellation comprising redundant symbol values to reduce power variation of the combined signal.

The applicant respectfully submits that that Kotzin does not disclose these features of claims 1 and 13. Kotzin discloses a system wherein a peak-to-average power ratio may be reduced for a specific signal (abstract). In particular, Kotzin describes that a coder (401 of FIG. 4) receives a plurality of signals which are then encoded using a coding scheme (ref. e.g.col. 6 lines 1 to 6). Kotzin does not describe what coding schemes may be used but merely refers to conventional coding techniques (col. 3 lines 48-56, col. 6 lines 1 to 6). The resulting outputs are fed to an analyzing processor (406 of FIG. 4). The analyzing processor then determines a peak-to-average power ratio for the already encoded data (e.g. col. 6 lines 7 to 11). If the ratio is not acceptable, a new coding technique is applied and the process is repeated (e.g. col. 6 lines 32 to 36 and the following paragraphs).

By contrast, claims 1 and 13 concern how information symbols are coded. Thus, these claims specifically relate to a feature which is not described in Kotzin – apart from the reference to standard coding schemes. That is, claims 1 and 13 relate to a combined

coding of independent information symbols such that a channel symbol is selected for the individual information symbol by jointly considering both the forward error correcting scheme and the power variation. This is in direct contrast to Kotzin wherein standard encoding is performed and wherein the peak-to-average power ratio can only be reduced by changing to a different standard coding scheme. Clearly, Kotzin does not disclose any coding of an individual information symbol which is based by a joint selection of a constellation point depending on the dual features of the forward error correcting coding and the power variation. Rather, Kotzin explicitly describes a system which is inherently based on a two stage process and a separation between the encoding of the data (by the coder 401) and the peak-to-average evaluation (by the analyzer processor 406). Indeed, it is noted that the peak-to-average evaluation cannot be performed until the coder 401 has generated an output signal by encoding received data.

The applicant further notes that the technical effect of the combined forward error correcting and power variation encoding is very substantial and provides for a significantly reduced bit error rate and power variation, a performance which cannot be achieved by conventional coding as disclosed in Kotzin. Therefore, the applicant respectfully submits that Kotzin does not teach the features of claims 1 and 13 of encoding information symbols into higher order channel symbols at substantially the same symbol rate, the encoding of an individual information symbol as a channel symbol both being in response to a forward error correction scheme and including selection of the channel symbol from a higher order channel symbol constellation comprising redundant symbol values to reduce power variation of the combined signal. Accordingly, the applicant the applicant respectfully requests that claims 1 and 13 may now be passed to allowance.

Since claims 2-12 depend upon allowable claim 1, the applicant respectfully requests that claims 2-12 may now be passed to allowance.

As the applicant has overcome all substantive rejections and objections given by the Examiner and has complied with all requests properly presented by the Examiner, the applicant contends that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicant

respectfully solicits allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,

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